



4. RGIK Inventorying: Upslope Connection and Additional Attributes

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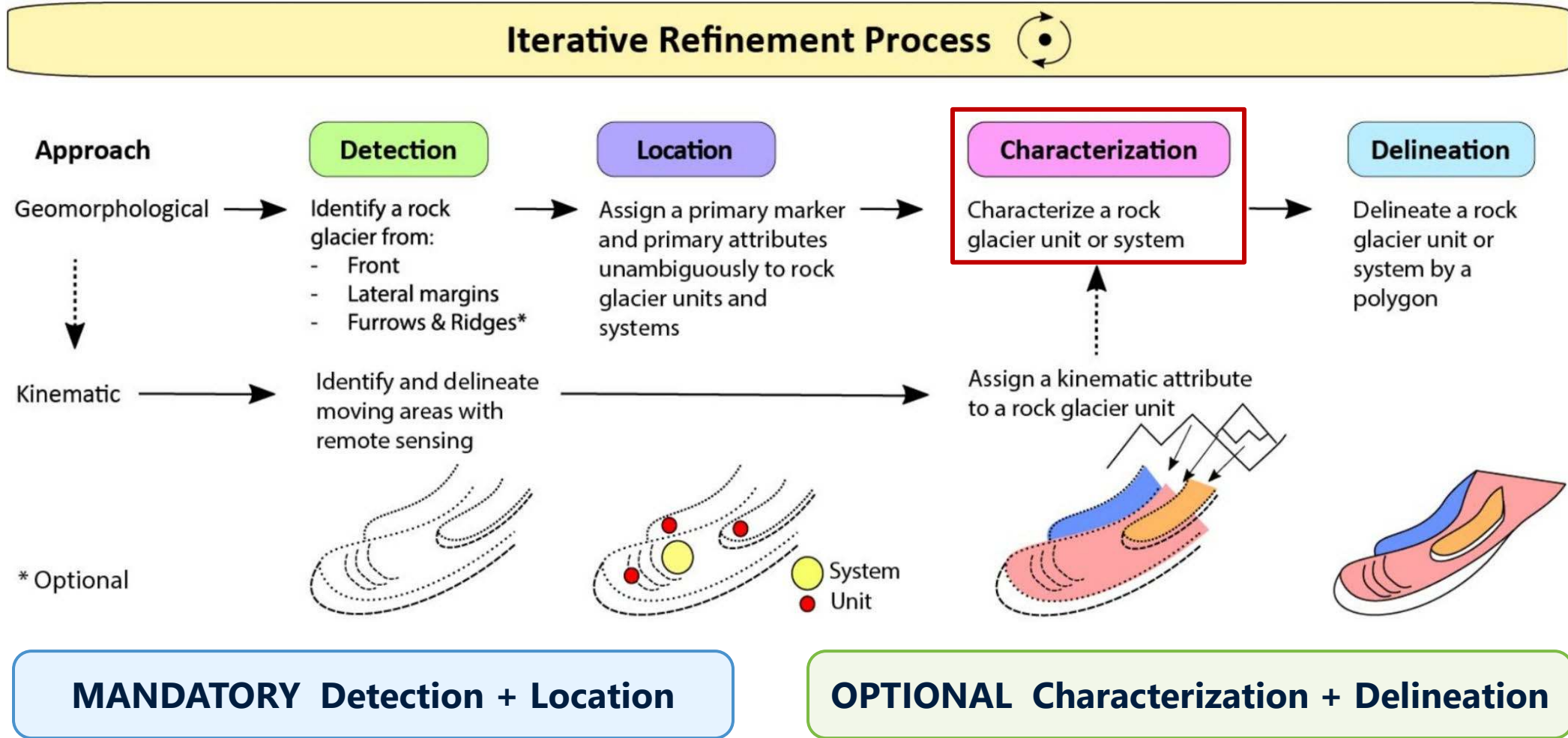
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Mandatory + Optional



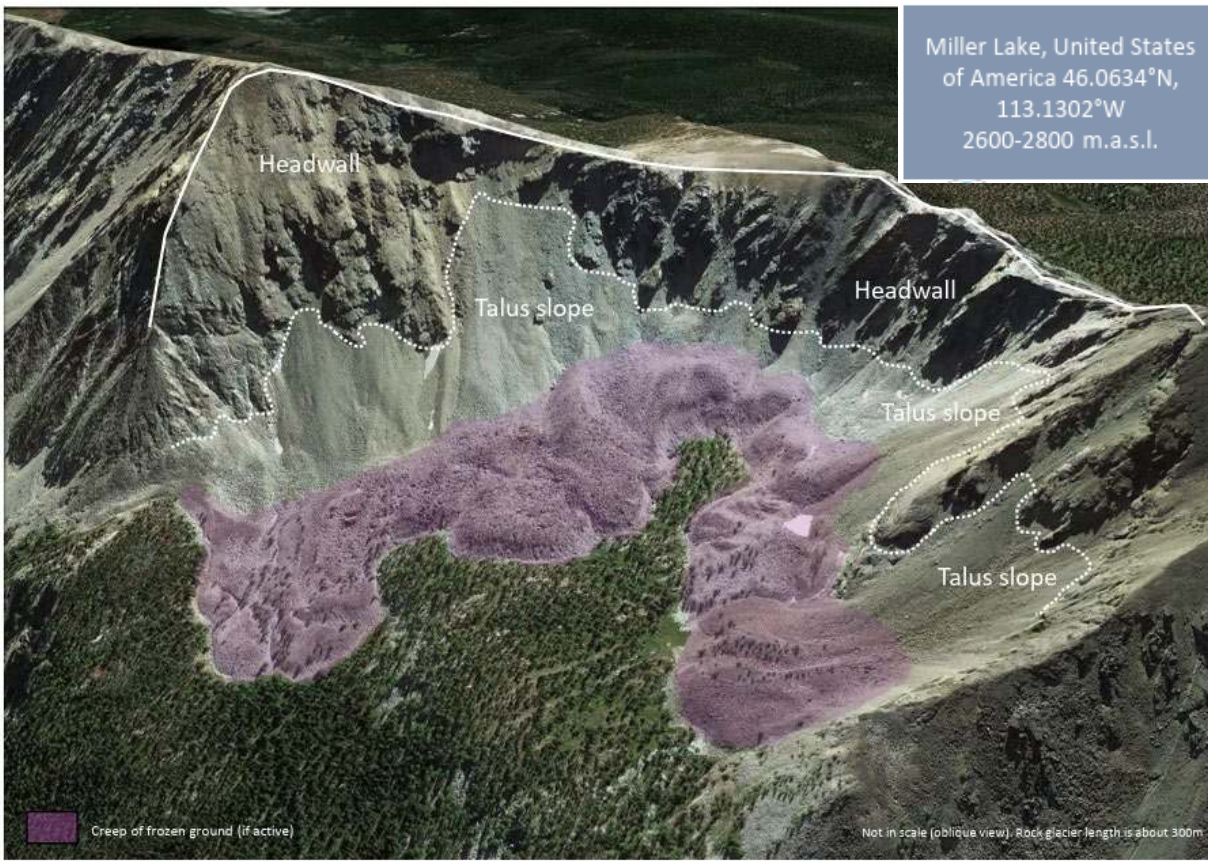
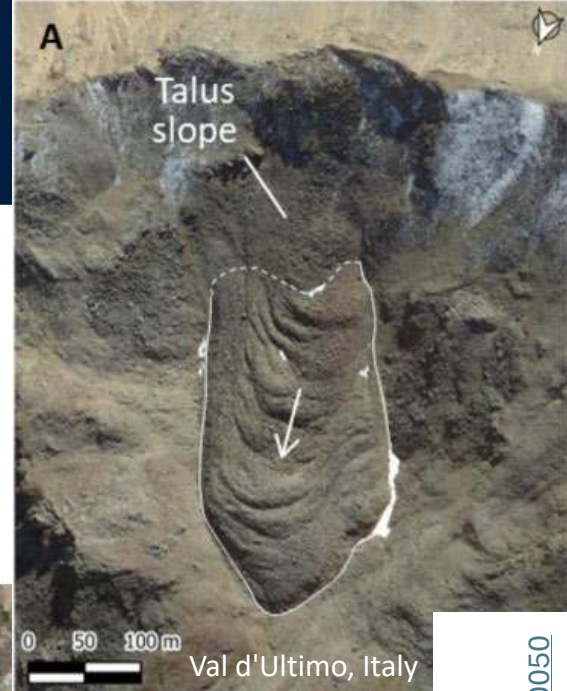
- **The geomorphological unit situated immediately upslope of a rock glacier** controls the amount and caliber of sediment supplied.
- Influence on **rock glacier characteristics** (e.g., internal structure, surface and subsurface texture, ice and ice content) and **dynamics** (e.g., due to ice content, sediment supply)
- Focus on the **spatial (structural) connection** (discernable on optical images).
- **Note:** The spatial connection of the rock glacier to an upslope unit does not necessarily imply a dynamic and/or genetic connection.

Upsl.Con.
Talus-connected
Debris-mantled slope-connected
Landslide-connected
Glacier-connected
Glacier forefield-connected
Poly-connected
Other
Uncertain
Unknown

Talus-connected RG

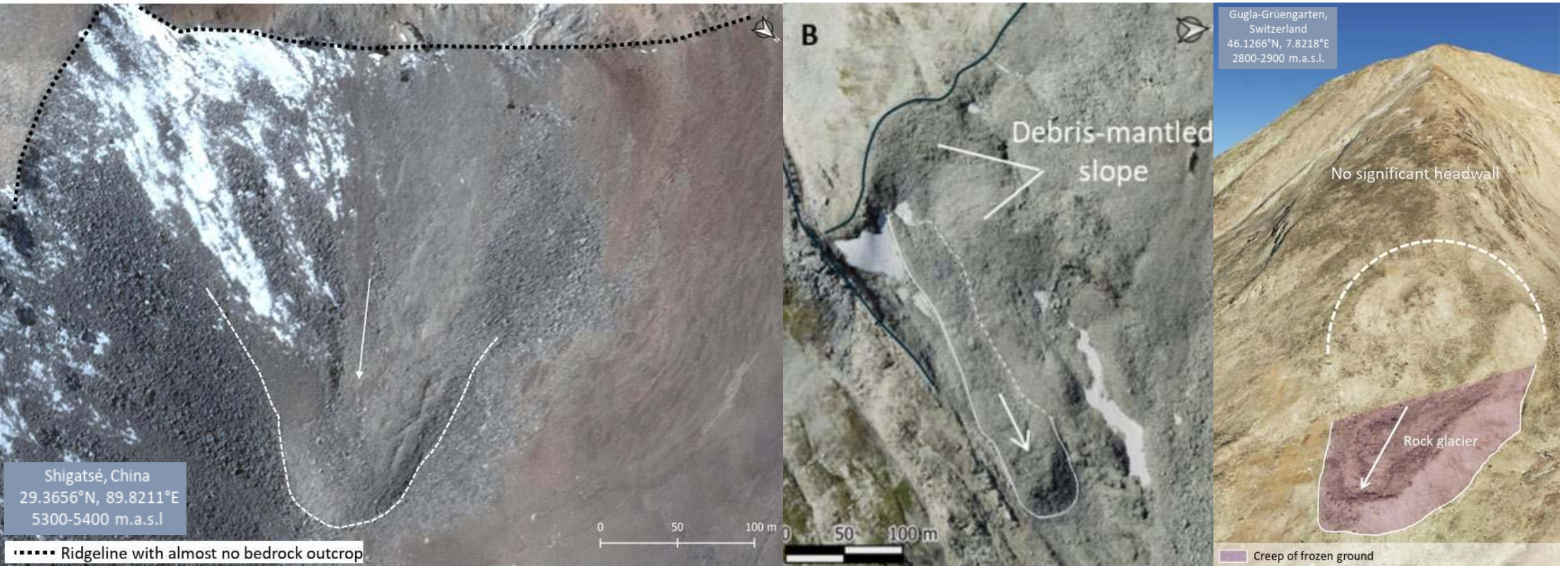


- Typical downslope sequence: **headwall – talus slope – rock glacier**
- The RG is subjacent and connected to a talus slope unit.
- The RG is dominantly **fed by rockfall** activity, but may also be fed by **surface runoff**, **debris flow** and/or **avalanche** events from the headwall unit.
- **Protalus ramparts**: Embryonic talus-connected RG



Debris-mantled slope-connected RG

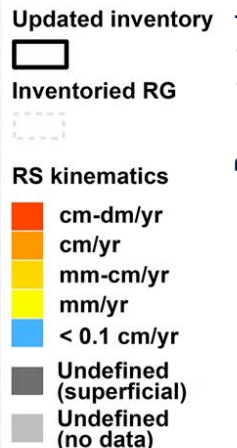
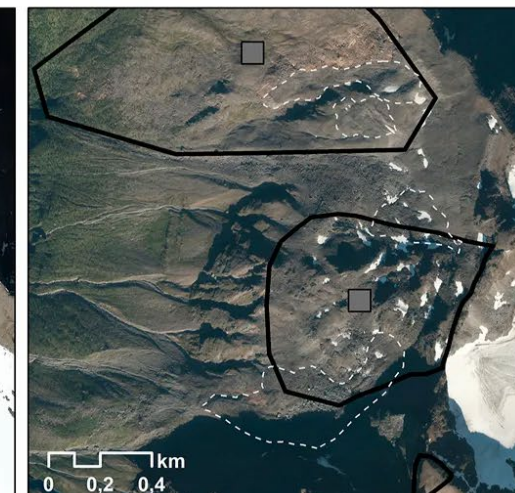
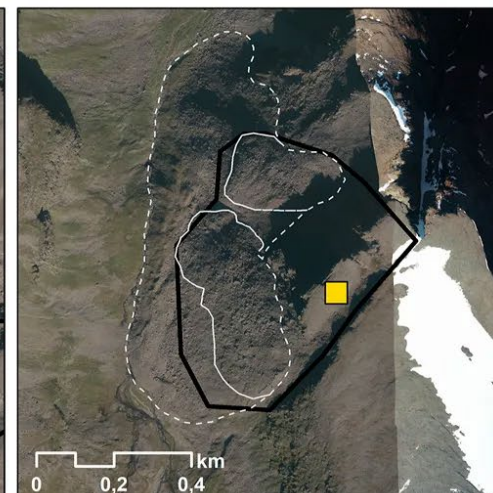
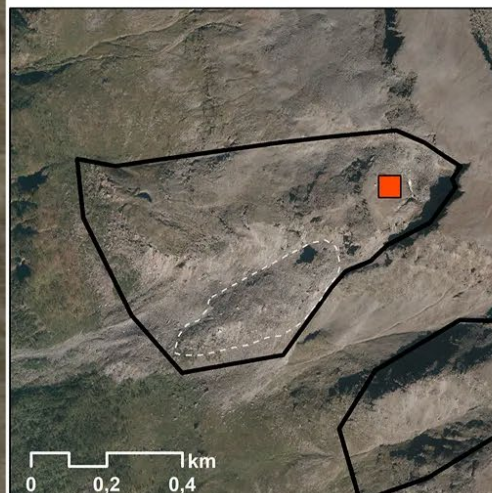
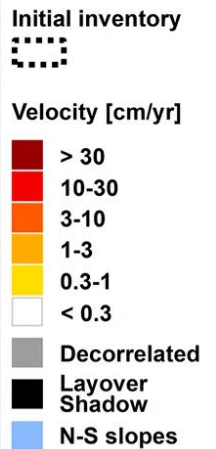
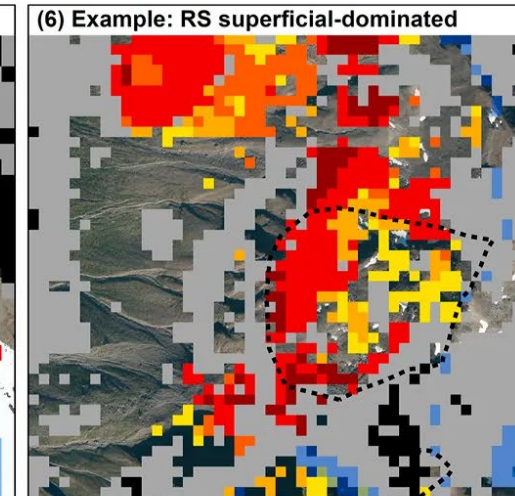
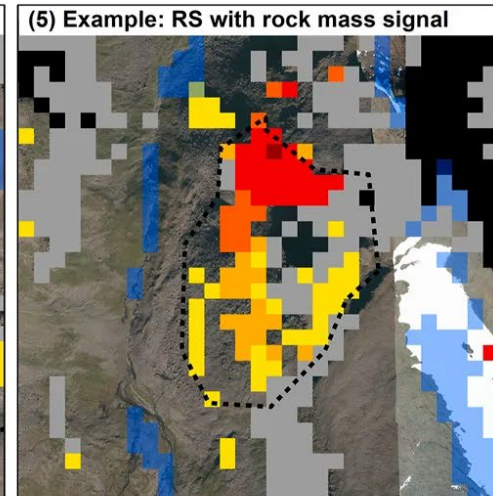
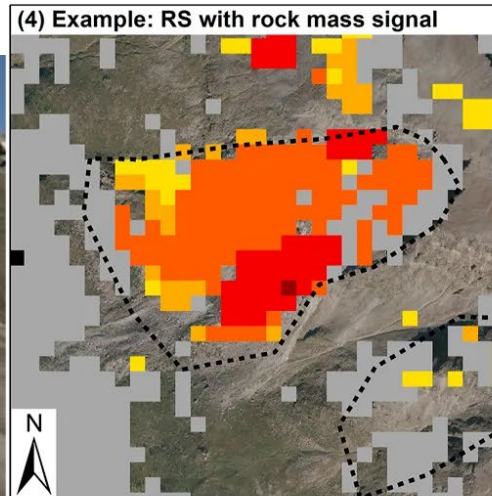
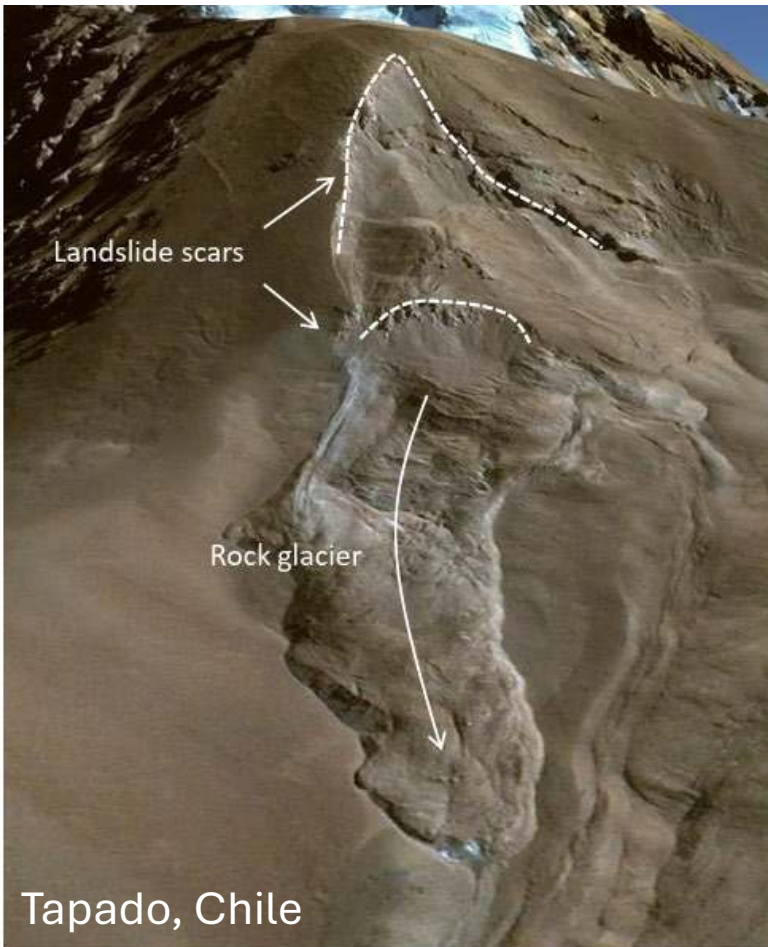
- **Lack of significant headwall**
- Debris dominantly produced by **in-situ bedrock weathering** (debris mantle)
- Debris gradually put into motion by shallow, surficial mass movement processes before developing into a RG.



Landslide-connected RG

- RG situated in direct downslope connection of a landslide, or lied on a large and active deep-seated gravitation slope deformation (DSGSD).
- Classical talus slope can be absent.

RoGI guidelines / Brardinoni et al., 2026

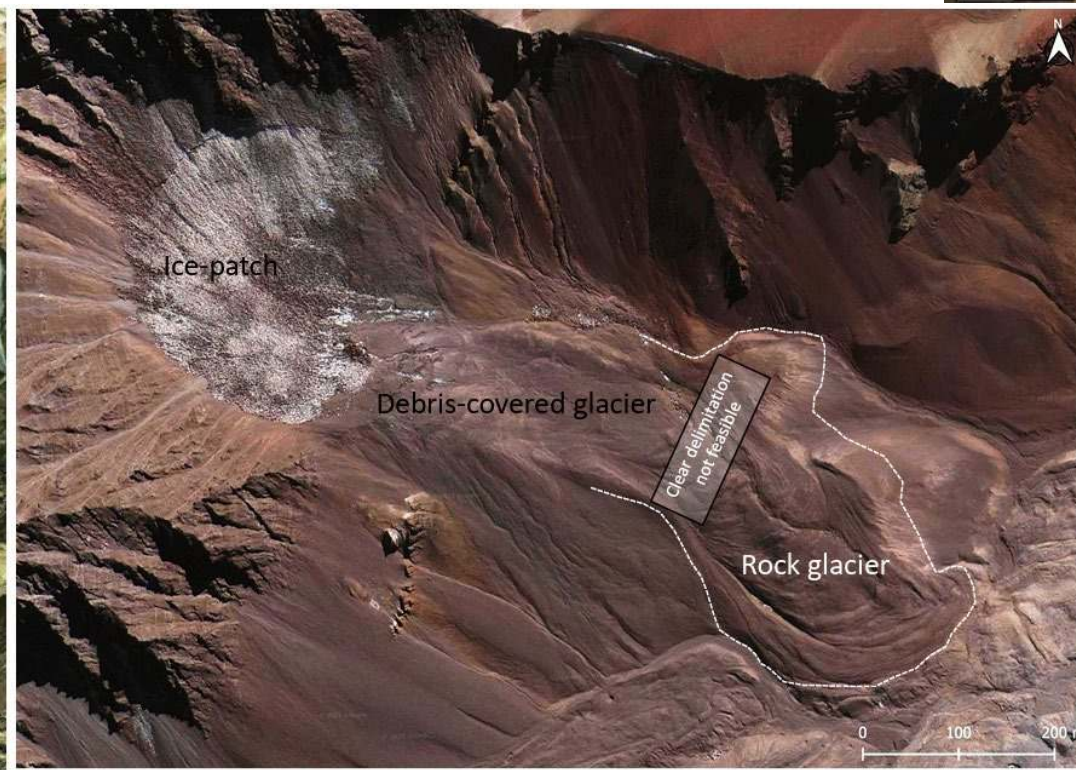
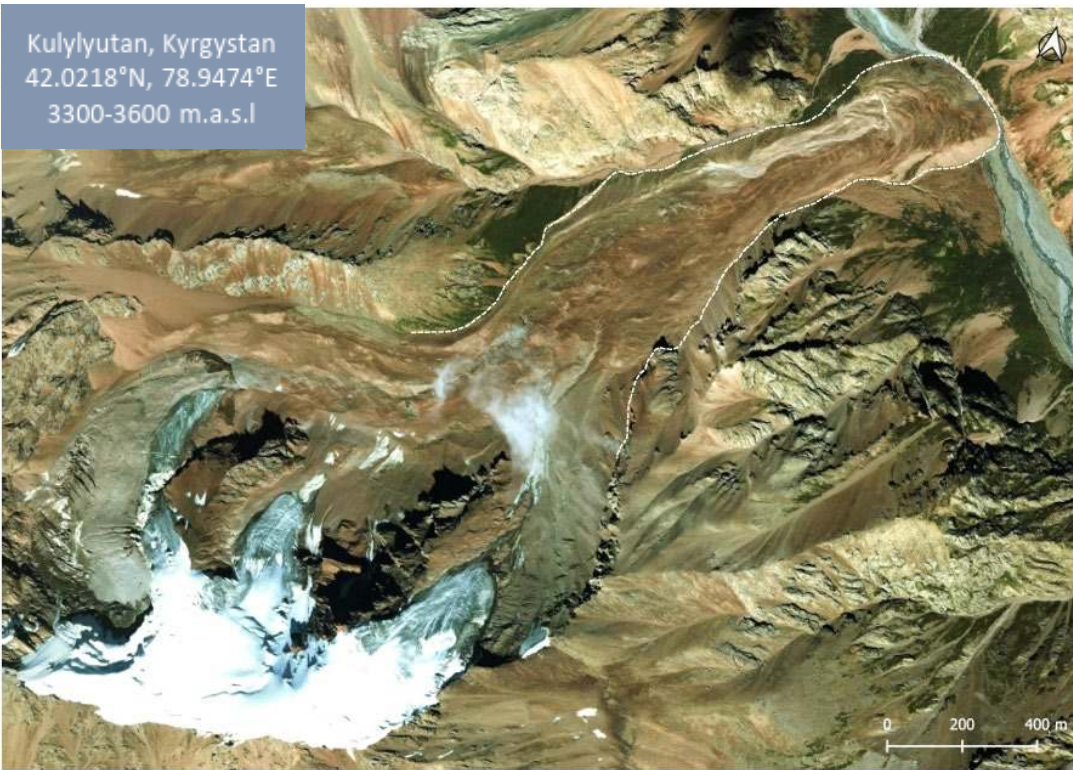


Glacier-connected RG



- Continuity between a rock glacier and a **glacier, debris-covered glacier or ice patch**
- **Frequent difficulty to draw the limit** between the glacier and the rock glacier without direct or geophysical prospection
- Visual evidence to estimate the location of the transition to a glacial system:
Crevasses, supra-glacial lakes, meltwater channels

[RoGI guidelines](#) / [Brardinoni et al., 2026](#)

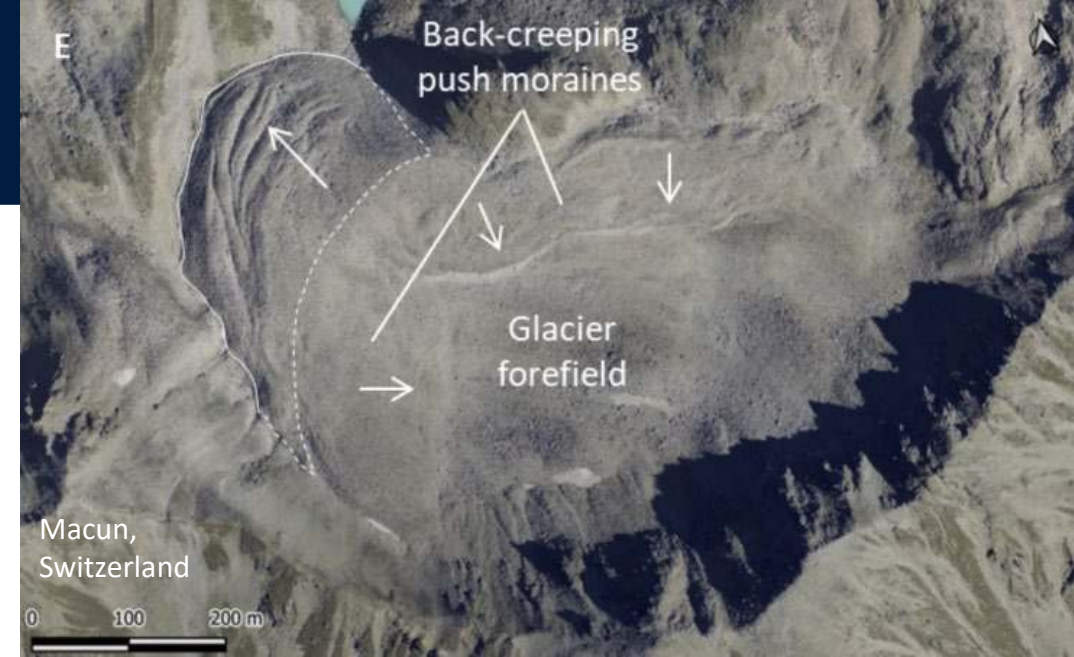


Nevado del Plomo,
Argentina
33.0747°S, 69.9333°W
4100-4500 m.a.s.l

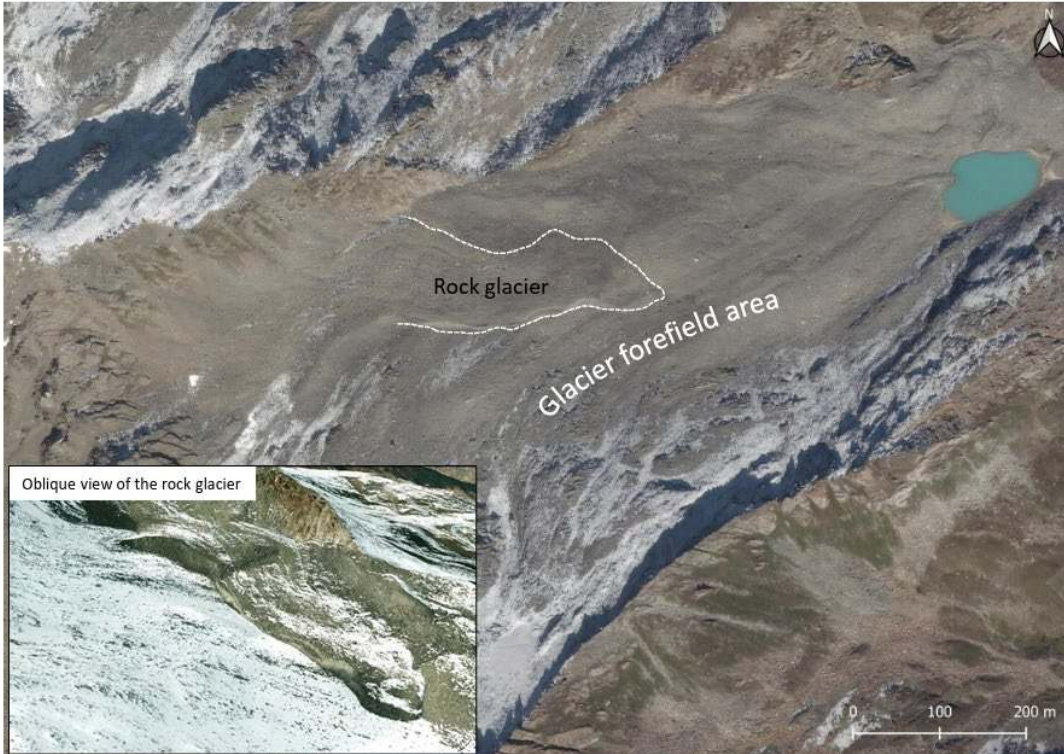
Glacier forefiled-connected RG

- RG develops **within or from a (formerly) glaciated area**.
- Interaction with glacier/ice patch is prevalent but restricted to phases of glacier advance (e.g. LIA).
- Possible embedded glacier ice in the RG.
- With glacier retreat, **the glacier is disconnected from the RG** or may have disappeared entirely.

RoGI guidelines / Brardinoni et al., 2026



Comment:
Rock glacier
developing within
the Little Ice Age
forefield area (back-
creeping push-
moraine).



Comment:
Glacier-forefield
connected rock
glacier system.
Whereas 1, 2, and 4
have moved outward
of their respective
glacier forefield, 3 is
moving toward the
inner part of the
glacier forefield
(back-creeping push-
moraine with front
development).



Aget, Switzerland
46.0091°N, 7.2398°E
2800-2900 m.a.s.l.

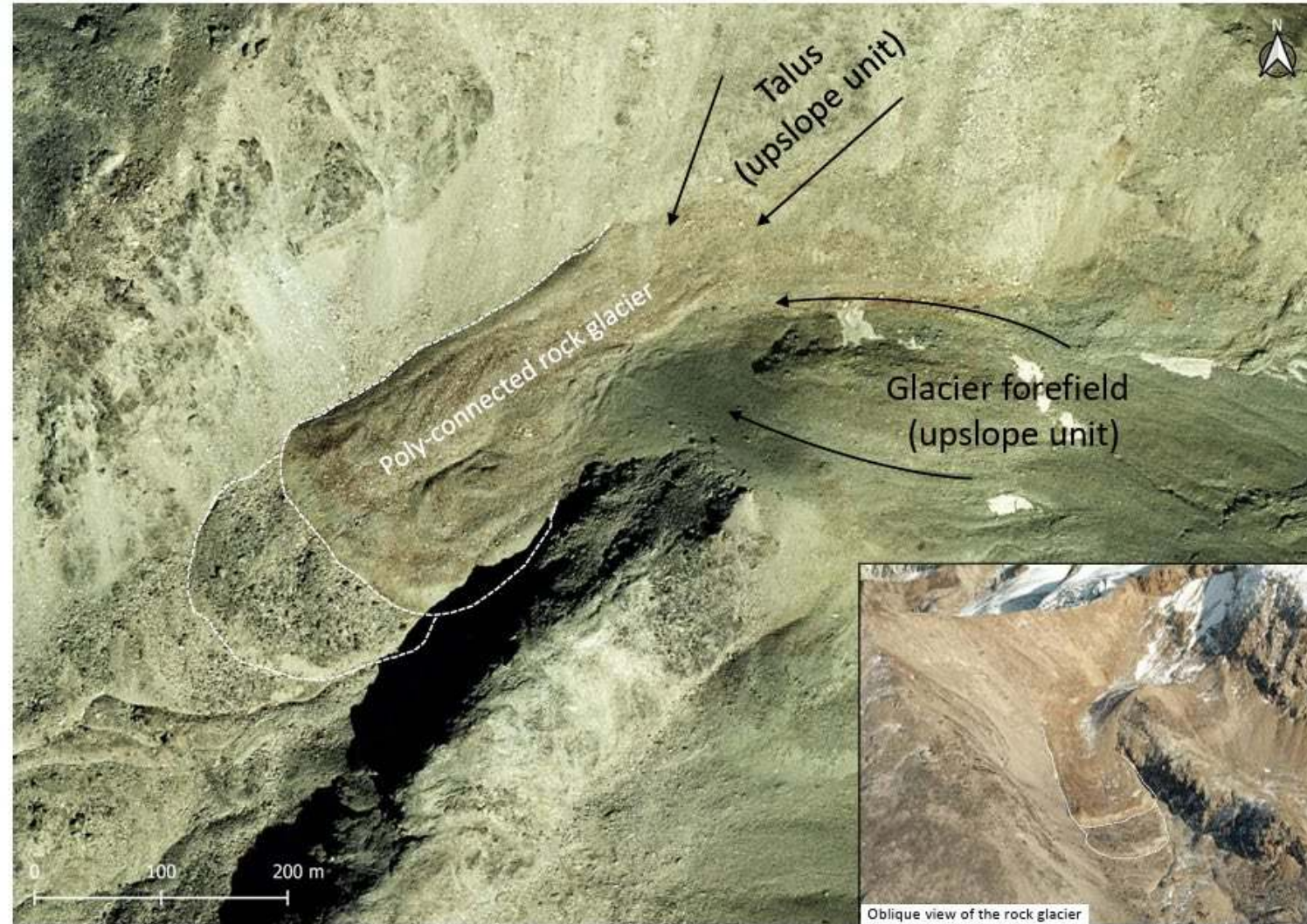
Ala-Archa, Kyrgyzstan
42.4780°N, 74.5084°E
3000-3500 m.a.s.l.

- **Poly-connected:**
two or more connections
(e.g. talus and glacier)
- **Other:**
to be documented in the
comment field
- **Uncertain:**
not sure, to be documented
in the comment field
- **Unknown:**
impossible to know with the
current data

Comment:
Poly-connected rock
glacier with two
different upslope units
(talus and glacier
forefield). In this
example there is no
clear dominance of one
type of connection
over the other.

Dirru, Switzerland
46.1287°N, 7.8313°E
3000-3200 m.a.s.l

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Other Attributes

Landform

Rock glacier

Comment

fid 

PrimaryID

Lat.

Long.

WorkingID

Alter.ID1

Alter.ID2

Assoc.RGS

Morpho.

Upsl.Cur.

Upsl.Con.

Comple.

Acti.Ass.

Destabili.

Landform type: *RG / Uncertain RG / Not a RG*

Free comment on geomorphology (uncertainties?)

Autofill

Alternative name/ID

System type: Mono-unit / multi-unit RGS

Morphology: Simple / Complex

Current connection? *Yes, No, Uncertain, Unknown*

Geomorpho unit located upslope

Completeness: yes, no (unclear connection to upslope or truncated front), uncertain

Sign of destabilisation? *No, Yes, ongoing, Yes, completed, Uncertain*

Approach for Activity Assessment:

Geomorpho / Kinematic

Acti.Ass.

▼ **KinAtt**

Kin.Att.

Rel.Kin.

Kin.Period

TypeOfData

Kin.Comment

Acti.Cl.

Kinematic Attribute

KA reliability

KA time frame

Type of data (radar)

Comment on KA (uncertainties?)

Activity class (active, active uncertain, transitional, relict, relict uncertain, uncertain, unknown)